

C: APPLICATION COVER SHEET FOR AN EXPERIMENTAL LEASE

RECEIVED

NOV 18 2016

Name: Robert E. Brewer

Address: 140 Stanley Field Dr

Maine Department of
Marine Resources

City: Deer Isle ME

County: Hancock

**REVISED
APPLICATION**

State, zip: ME 04627

3-30-17

Telephone: business 207 322-0569 home 207 348 3134 cell same as business

Email address: NOPC If its a problem I can get one

**Deemed Complete
April 19, 2017**

Location of lease site: Stonington ^{town} Hancock ^{county} E. Penobscot Bay ^{waterbody}

Additional description S.W. Andrews Isle
(e.g. south of B Island)

Total acreage requested (4-acre maximum): 3.8

Growing Area # 38 Water Quality Classification approved

Type of culture (circle): Bottom (no gear) Suspended (gear in the water and/or on the bottom) Net Pen (finfish)

Name of species to be cultivated: common and scientific names:

Scallops / (Placorecten - Magellanicus)

Name and address of the source of seed stock, juveniles, smolts, etc., to be cultivated:

Self Special Licence # ME 2016 -72-00

Amount of application fee enclosed: 100.00\$
(\$100 payable to: Treasurer, State of Maine)

I hereby state that the information included in this application is true and correct and that I have read and understand the requirements of the Department's rules governing aquaculture.

Signature: Bobby E. Brewer Date: 10/31/16

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Boundary Description For Lease Application

The proposed lease site is located 600 ft. S/SW of Andrews Island which is part of the town of Stonington. The site is 150 feet wide and 930 feet long, about 3.8 acres.

The Coordinates for the proposed site are;

NW corner: 44.14316667 N 68.70766667 W Depth @ MLW 60ft

SW corner: 44.140651 N 68.706962 W Depth @ MLW 62ft

SE corner: 44.14071 N 68.7064 W Depth @ MLW 56ft

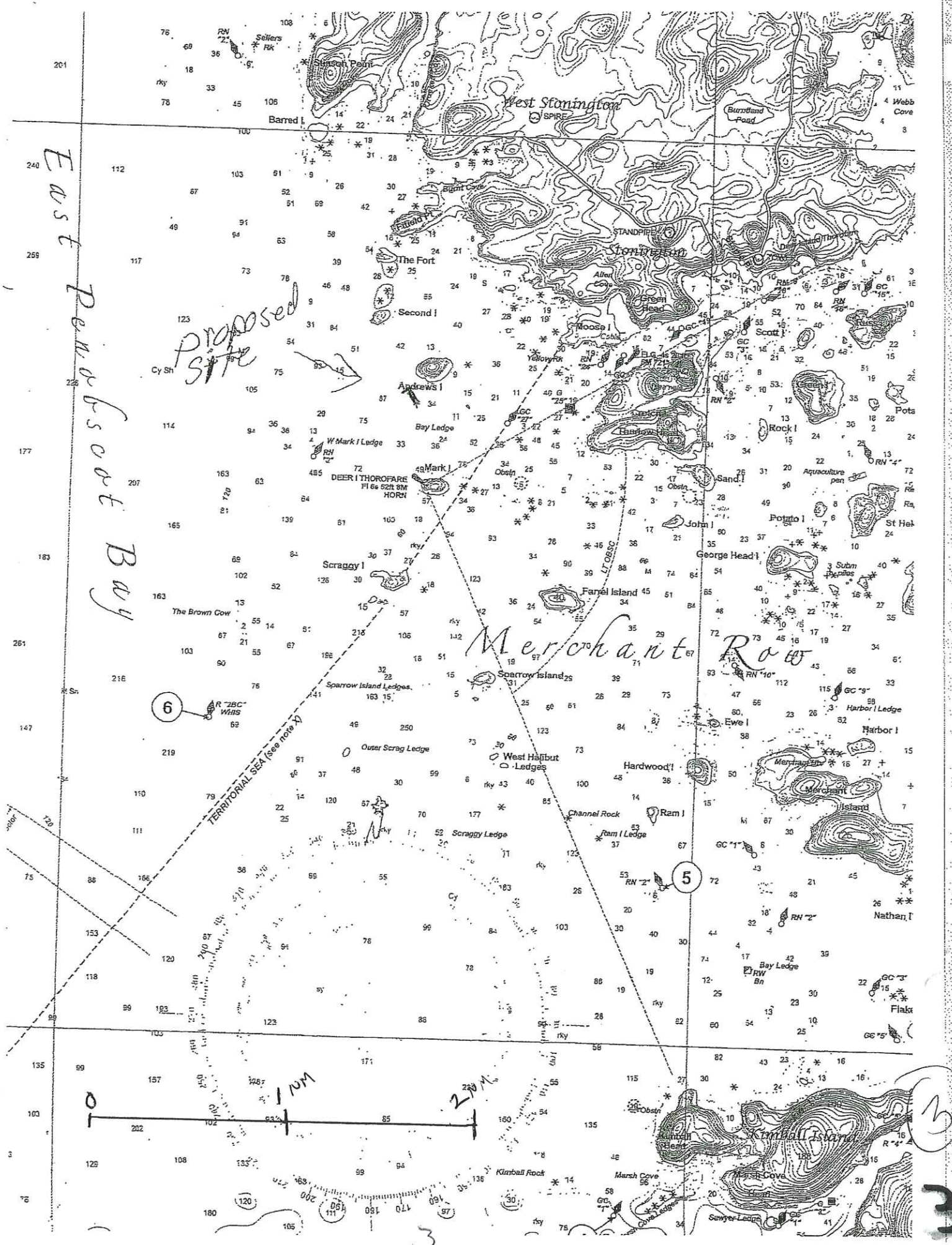
NE corner 44.143222 N 86.7070888 W Depth @ MLW 54ft

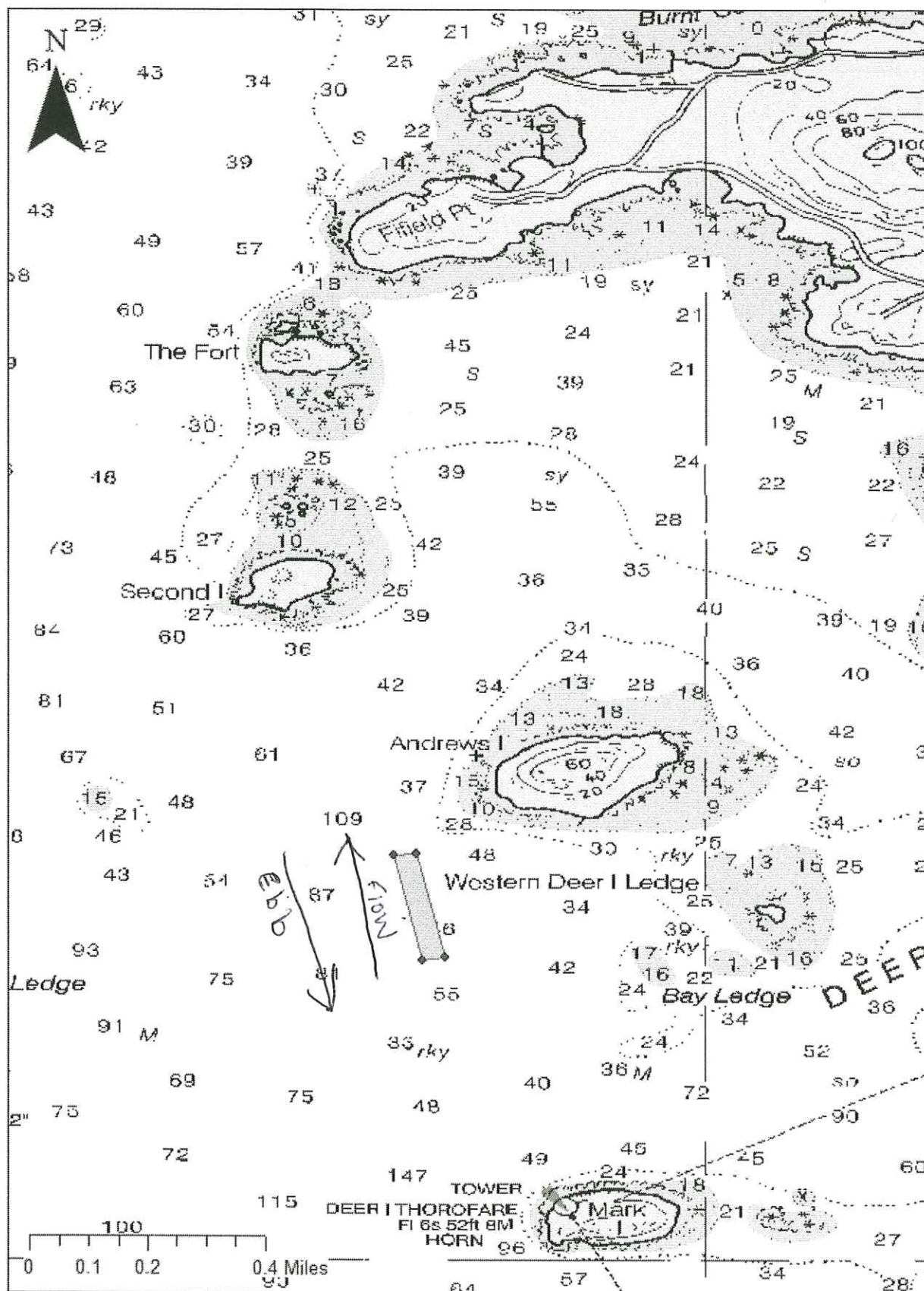
I used a Hondex plotter, Datum WGM-84 and a Furuno sounder to locate and create a draft of the boundaries, DMR staff was kind enough to come up with the GPS coordinates that reflect my intent with regard to size and location.

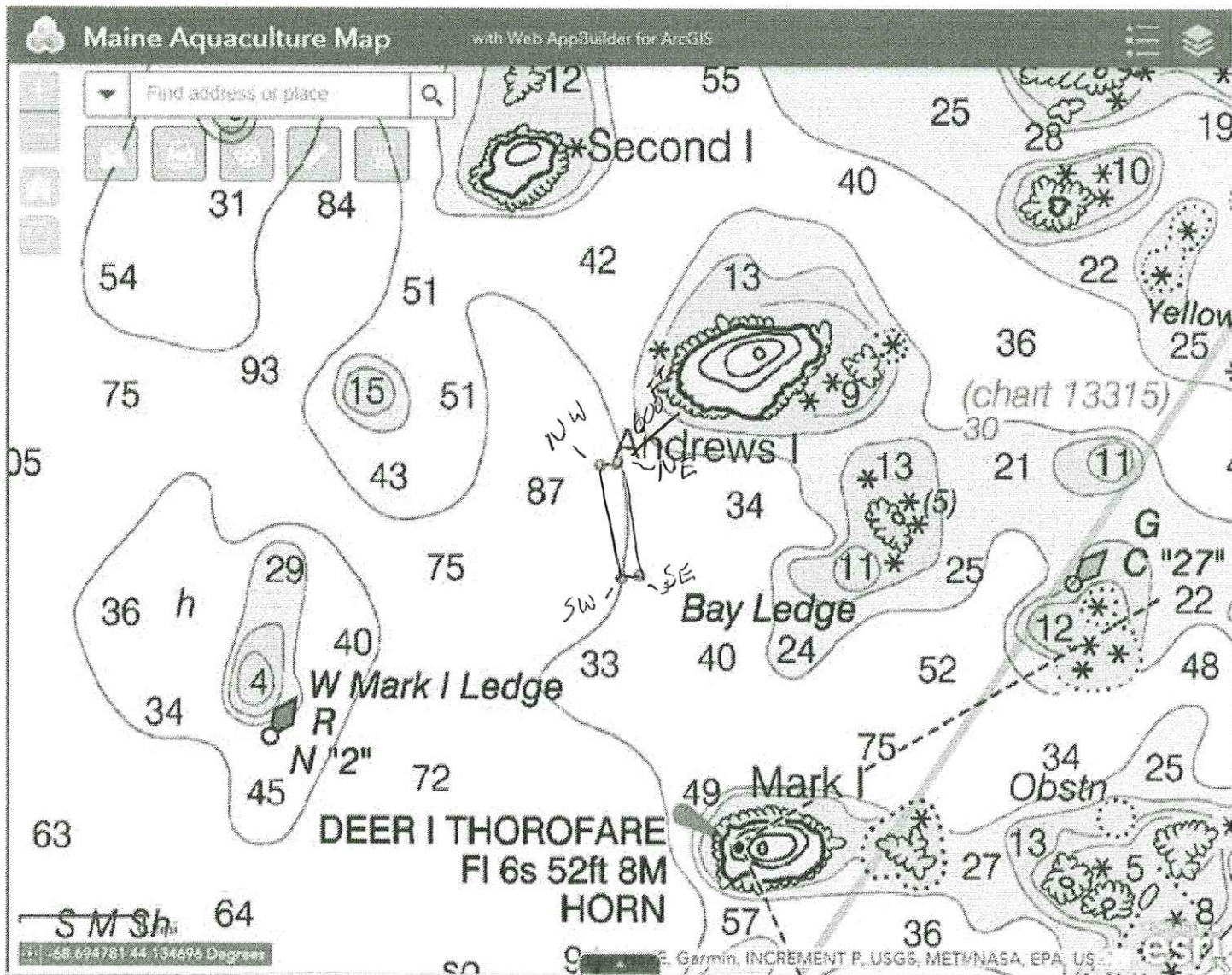
The bottom substrate is soft mud. The site is currently marked with a 6x14 buoy at each corner.

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TOWN OF STONINGTON
32 MAIN STREET
STONINGTON, MAINE 04681



Select Committee
Richard Larrabee, Sr.
Chairman
Christopher Betts
Donna Brewer
Evelyn Duncan
John Robbins

Staff
Kathleen Billings
Town Manager
Treasurer
Tax Collector

Lucretia Bradshaw
Town Clerk

Bridget Brophy
Deputy Clerk

Raelene Pert
Shellfish Warden
Harbormaster

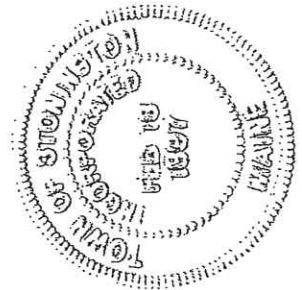
November 15, 2016

To Whom it May Concern:

The purpose of this letter is to certify that the owner, as listed in the Hancock County Registry of Deeds, of a certain parcel of land located within the limits of Stonington, known as Andrew's Island and identified on the Town of Stonington's tax maps as Map 4A, Lot 50, is Maine Coast Heritage Trust, having a mailing address of 1 Bowdoin Mill Island, Suite 201, Topsham, Maine 04086.

Respectfully,

Lucretia Turner Bradshaw
Town Clerk & Deputy Tax Collector
Town of Stonington, Maine



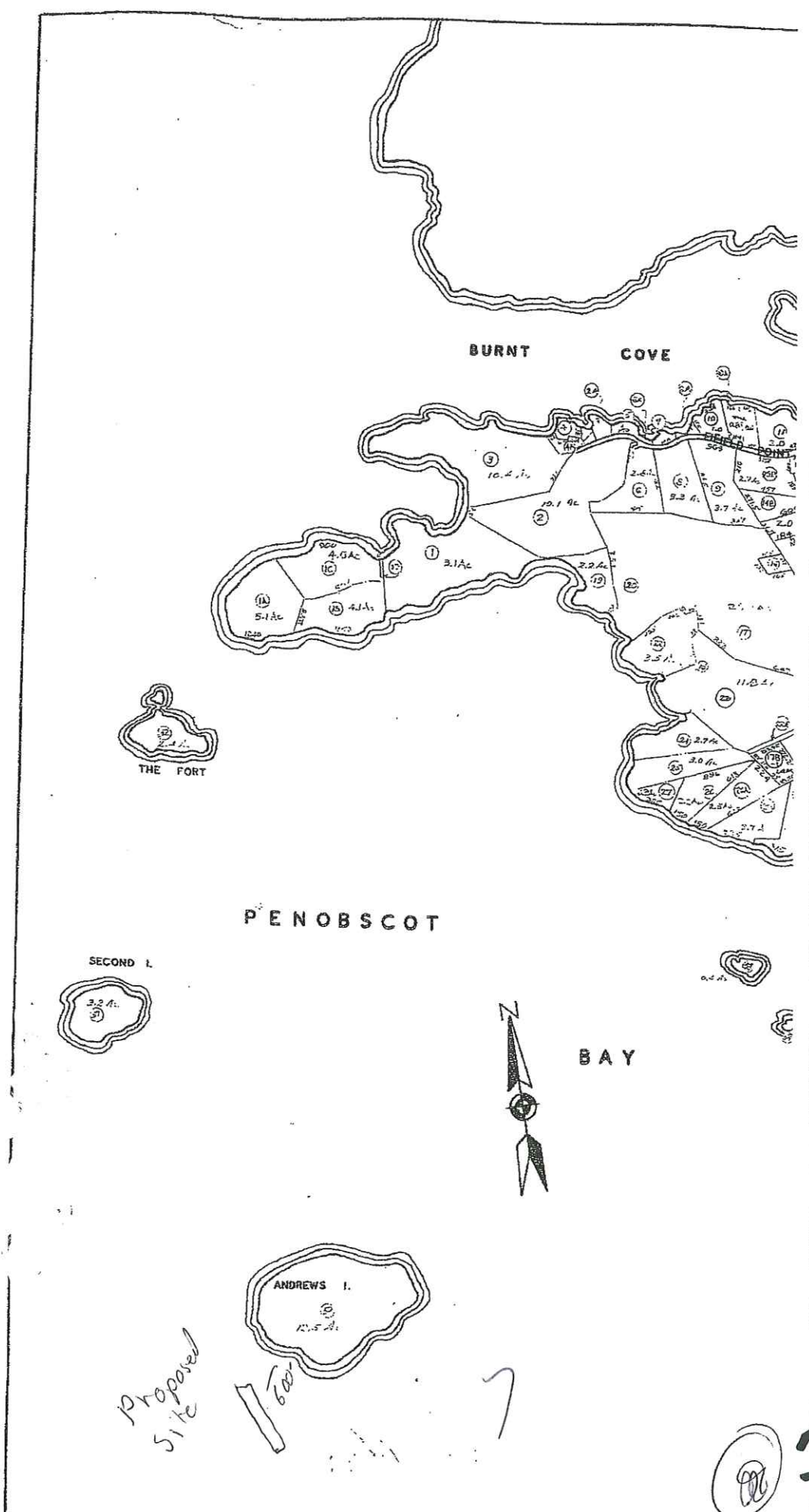
P.O. Box 9
Stonington, Maine 04681-0009
Tel (207) 367-2351 Fax (207) 367-6361
Email: StoningtonsTownManager@gmail.com
www.stoningtonmaine.org

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November 15, 2016
 A true copy attest of Map 4A & 4B of the Tax Maps of the Town of Stonington.
 Lucretia Turner Bradshaw, Town Clerk

[Handwritten signature]



Operations

Each year in December lines of spat bags containing newly collected scallop spat will be hung on the underwater longline. In May or June the juvenile scallops will be graded and placed in lantern nets for intermediate culture, some will be sold to other growers. In Sept the scallops will be regraded and the stocking density will be reduced and the bags will be cleaned, most likely with a dip in a hot water barrel. In November further reduce the stocking density and separate the largest ones to a lantern net with a larger mesh for ear hanging in April or May where they will grow for two more years to be harvested for their meats. We are planing on getting a workable MOU to send the rest of the half mature scallops whole to a processor in February to be to steamed and have the gut and intestine shell removed from rest of the scallop and frozen for distribution. This is something the Maine Aquaculture Co-op will be working with Dana Morse from Sea Grant on so long as Trump doesn't eliminate Sea Grant. While there is interest in live markets it is currently not possible due to testing requirements, should this matter ever get resolved we will be looking at that market also, but for now we will not be pursuing it.

Research Program

The purpose of this experimental lease is to evaluate the commercial feasibility of growing sea scallops using Japanese underwater longline culture techniques. This site will have two 600' longlines submerged 15' under the surface at low water. Each 600' longline should provide intermediate culture space for up to 100,000 scallops. The study will be for 3 years. I am a commercial fisherman, not a scientist, so I will call it commercial research.

Existing Uses

I have fished in the general area for twenty years on my own and with my father. the site is attractive because of its lack of existing uses. The substrate is soft mud and rarely has a lobster trap in it, when it does the fisherman always moves it within a haul or two. There is lobster fishing around it in the firmer bottom during shedder season. No moorings, not used for ingress or egress, not in a navigational channel, and I have never seen anyone fishing recreationally there.

Exclusive Use

As the gear will be suspended in the water column, in order to avoid gear damage, I am asking for exclusive use within the lease area.



Environmental Characterization

The site was chosen first because of its location, a couple miles from Stonington Harbor. After that it was important to have sufficient depth for the underwater longline culture of our local sea scallops, the water depth ranges from 54 to 62 feet at mean low water, add 10' for MHW. In order to avoid gear conflict, I chose this site because of its bottom characteristics, soft mud, along with its lack of flora and fauna, the site looks like a flat desert on the bottom machine that slopes gently to the SW. The current speed varies from zero to two knots depending on time during the tidal cycle and the lunar cycle. The current direction is generally North & South with an east / west cant to it at certain times of the month/year. The nearest shores to the site are granite faced (not man made) ledges and small uninhabited Islands.

Environmental Impact

I am expecting a positive environmental impact. As scallops are filter feeders, if anything, they will be helping water quality. I would expect the gear in the water column to spark the curiosity of fish and crustaceans, while it won't make any more of these species it will most likely draw them into the area as any underwater structure will. By far the single largest positive environmental impact will occur when and where there is successful settlement and recruitment of some of the tens of billions of scallop larvae that this site will produce annually.

The shellfish growing area classification for the proposed lease site is "Approved".

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Cross-Section View

A Narrative,

In order to understand an underwater longline for scallops is important to understand what it is that you are trying to accomplish, growing scallops in the water column. Scallops get "seasick". The longline can't be suspended from the surface with surface buoys in exposed water because wave action will effect scallop growth, mortality, and loss from excessive wear on the ear hanging pin.

Ear hanging is a method of scallop culture that involves drilling a small hole in an area by the hinge of the scallop and pinning them one on each side of a vertical line called a dropper. On this site the 5/16 diameter droppers will be 35ft and each dropper will have a pin every 6 inches. We are looking to place the droppers eight inches apart on the longline.

The Longline consists of a 600 ft line one inch in diameter, each end of the line will have a cluster of five 16" buoys attached, also there will be a piece of 3/8 line with two 100 lb. rocks attached to the longline. The length of the intermediate anchor line will be 15ft shorter than the depth at Mean Low Water. The depth of the longline will vary from 15 to 27 feet below the surface depending on the tide. The longline will have on each end an anchor line connected to a Japanese style spade anchor. The length of the one inch diameter anchor line will be three times the depth of the water when measured from the longline to bottom. The tension on the line between the anchors will help hold the longline in place and at the desired depth.

There are two other types of gear that will be hanging from the longline. One type is scallop spat bags, these are what we use to catch the scallop larvae as they settle to bottom. Spat bags are about the size of a half bushel onion bag and the are "baited up" with a plastic material called netron. This type of gear will be on the lines from around January until July.

From the spat bags the small scallops (less than one inch) will be graded for size and put in lantern nets. See attached picture labeled Lantern Net. Stocking density will be reduced from 100 per floor in the lantern net to 10 per floor over time. The lantern nets that we will use are 20 inches in diameter and six feet long. We will be experimenting with spacing on the rope.

There is one more important part of an underwater longline, Balls. I suspect it is going to take a lot of "balls" to grow scallops using Japanese underwater longline techniques. The balls that we use are 16 inch diameter hard plastic aquaculture balls that will have a crush depth that exceeds the water depth. The ball spacing will vary dependent on the type of gear, the weight of the product and the amount of fouling. The longline position in the water column will be monitored with the depth sounder.

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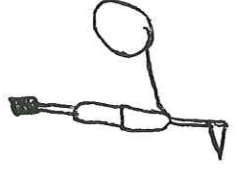
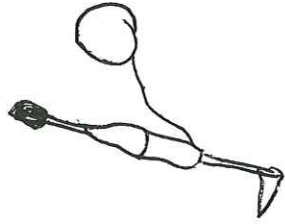
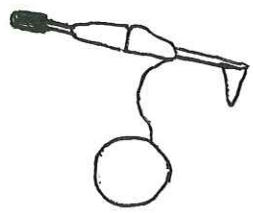
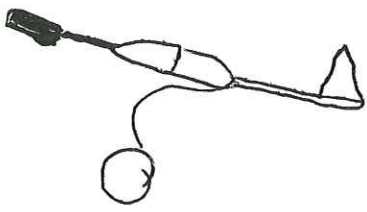
Surface markers; One of the things I like best about the Japanese underwater longline system is the lack of gear or markers on the surface. At each end of each anchor line, at the anchor, there will be a 3/8 line going to a distinctive surface buoy that will be marked Sea Farm. At each end and in the middle of the longline there will be 16" hard plastic aquaculture ball connected with a 15' line. There will also be a highflier with a radar reflector connected to the balls on each end of the longline with a 30' piece of 3/8 sinking rope. At low tide you will see a required sea farm buoy on each end and three black aquaculture balls marking the longline with a highflier on each end of the longline. At high tide you will only see the two required sea farm buoys marking the anchors and two highfliers marking the gear.

Seo form

150'

Seo form

930' lot View



Seo form

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Seo form
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Me DMR Hearings Officer,

I have read MDMR Aquaculture Regulations 2.40 and upon issuance of a lease by MDMR I will either open an escrow account or obtain a performance bond of \$5000.00.

Robert Brewer

Robert E. Brewer